Effect of Sepidan WP on control of pistachio psylla, Agonosccna pistaciae Burkharat & Lauterer


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Pistachio Psylla, Agonosccna pistaciae Burkharat & Lauter (Hem.: Psyllidiae), is the most important pest of pistachio orchards and reduce the quantity and quality of product. Several different insecticides have been used to control psylla. In the present study, for reduction of chemical insecticides using, the application of kaolin particle film (Sepidan® WP, 3 & 5%) and acetamiprid (Mospilan®, SP20%, 250 ppm) were tested in the fields of Semnan, Khorasan-Razavi, South Khorasan, Yazd and Qom regions. The different concentrations of insecticide were sprayed over the whole canopy and fruits three and three times at 4–5-week intervals from mildly May to mildly July. Based on the field studies, the psylla nymph infestation, in 21 days after treatment, was reduced in the kaolin treatment by 76.2% and was inhibited psylla oviposition by 87.1%. Also the result showed that, the fruit weight & seasonal shell splitting were increased and ounce nut weight & blank nut were reduced in kaolin treatments. Results on pistachio chlorophyll and photosynthesis showed that, spray of kaolin on pistachio trees was no evil-effect. Therefore, kaolin (Sepidan® WP) spray over the whole canopy of pistachio trees, three to four times at 4-5-week intervals (5% concentration), could be used successfully to reduce biotic and abiotic harmful agents, including psylla & environmental stresses on pistachio.